



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/490,666	01/24/2000	Robert Alvin Mohror	1203	7465

27310 7590 04/08/2003

PIONEER HI-BRED INTERNATIONAL INC.
7100 N.W. 62ND AVENUE
P.O. BOX 1000
JOHNSTON, IA 50131

EXAMINER

FOX, DAVID T

ART UNIT PAPER NUMBER

1638

DATE MAILED: 04/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/4 20/666

Applicant(s)

Mohrner

Examiner

FOX

Group Art Unit

1638

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE -3- MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 12/30/02
- ☒ Responsive to communication(s) filed on _____.
 - ☒ This action is **FINAL**.
 - ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-4, 52-61, 63, 66-71 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☒ Claim(s) 1, 2, 4, 52-54, 66, 71 is/are allowed.
- ☒ Claim(s) 3, 55-61, 63, 67-70 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

Art Unit: 1638

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Applicant's amendment of 30 December 2002 has obviated all rejections of claim 54.

Claims 3, 55-61, and 63 (newly amended) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3, 55, 58, 61 and dependents are indefinite for characterizing the plant of claim 2, which lacks subsequently recited characteristics or genes, as containing additional genes or further characteristics, as stated on the bottom of page 2 of the last Office action.

Claim 61 is indefinite for its recitation of "other than male sterility" in the last two lines, since PH48V does not possess male sterility.

Claims 55- 61, 63, (amended), 67-69 and 70 (newly submitted) are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, as stated on pages 3-5 of the last Office action for claims 54, 57, 60-61, 63-65 and 67-69.

Claims 55-61, 63 (amended) and 70 (newly submitted) are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly

Art Unit: 1638

connected, to make and/or use the invention, as stated on pages 5-7 of the last Office action for claims 61 and 64-65.

The claims remain free of the prior art, given the failure of the prior art to teach or suggest an inbred maize plant having all of the morphological and physiological characteristics of the exemplified corn plant, or having essentially all of the characteristics plus an additional introgressed trait, or methods of their use.

Claims 1, 2, 4, 52-54, 66 and 71 are allowed.

Applicant's arguments filed 30 December 2002, insofar as they pertain to the rejections above, have been fully considered but they are not persuasive.

Applicant urges that the indefiniteness rejection is improper, given the discussion in the specification of backcrossing methods. The Examiner maintains that the enablement of these claims is a separate issue. Nonetheless, dependent claims, which characterize the plant of claim 2 as having non-PH48V traits, remain indefinite for failing to further limit claim 2, drawn to PH48V.

Applicant urges that the written description rejection is improper, given the amendment of the claims to be limited to methods of making F1 hybrids, or to plants with introgressed qualitative traits, or to a transgenic plant comprising any transgene and a method for making it. Applicant further urges that the methods of claims 67-69 are fully described in the instant specification and are merely drawn to the roguing of contaminating hybrid seeds from inbred seed bags.

Art Unit: 1638

The Examiner maintains that the progeny of any plant with only one PH48V parent are not adequately described, since the second parent was not described at all, and since a portion of the second parent's genetic contribution, besides the gene(s) governing the qualitative trait, would remain. The Examiner further maintains that claims broadly drawn to any unspecified and uncharacterized (either by structure or function) transgene, or its use to transform any plant, remain inadequately described. Regarding claims 67-69, the Examiner maintains that these claims are broadly drawn to methods of using any hybrid seed which would result from the cross of PH48V with any other undescribed plant, and so are inadequately described. The alleged intended use of the claimed method does not negate its lack of adequate written description.

Applicant urges that the enablement rejection is improper, given the failure of the references cited by the Examiner to support his position, and given the recognition by The World Seed Organization via the 1991 Act of the UPOV Convention that the initial rights to "essentially derived varieties" rest with those who developed the varieties prior to their subsequent mutation or introgression of additional traits. Applicant also urges that the backcross method is well-known in the art. Applicant also urges that the use of the exemplified PH48V inbred to make F1 hybrids would result in the maintenance of advantageous PH48V-linked traits without the effort in developing an entirely new inbred line.

The Examiner maintains that the cited references do indeed provide examples of the unpredictability of maintaining the complete genetic complement of the exemplified inbred, except for the introduction of a single trait, whether quantitative or qualitative, as discussed previously.

Art Unit: 1638

Regarding the UPOV Convention, it is noted that the U.S. statutes governing the patenting of plants under 35 USC 101 and 112 are independent of the UPOV Convention.

The Examiner does not contest that backcross breeding is well-known in the art. The issue at hand is that Applicant's exemplified inbred is patentable based on its unique genetic complement at every locus, and its unique collection of morphological and physiological traits. The aim of the backcross breeder is to obtain a plant which retains *most of* the desirable traits and genetic complement of the recurrent parent. Applicant has not provided any genetic characterization, via molecular markers or other analysis, which would identify the retention of the exemplified inbred's genome. Furthermore, Applicant has not provided any example of a plant which retains "essentially all" of the characteristics of the exemplified inbred, following introgression of any qualitative trait. In the absence of such genetic characterization or evidence, and given the evidence provided by the Examiner, it appears that the exemplified inbred's unique genetic complement would indeed be disrupted beyond the alleged introduction of a single qualitative trait, so that it would not be possible to obtain a plant with "essentially all" of its characteristics.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 1638

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David T. Fox whose telephone number is (703) 308-0280. The examiner can normally be reached on Monday through Friday from 10:30AM to 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached on (703) 306-3218. The fax phone number for this Group is (703) 872-9306. The after final fax phone number is (703) 872-9307.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

April 5, 2003

DAVID T. FOX
PRIMARY EXAMINER
GROUP 180-1638

A handwritten signature in black ink, appearing to read "David T. Fox", written over the printed name and title.